SYLLABUS OF M.A. ECONOMICS PROGRAMME UNDER CBCS w.e.f. 2018-2019

Sl.No.	Codes	Paper	Number of Credits
		CORE COURSES (8)	
1	ECC 111	Microeconomics – I	4
2	ECC 211	Microeconomics – II	4
3	ECC 112	Macroeconomics – I	4
4	ECC 212	Macroeconomics – II	4
5	ECC 113	Public Economics	4
6	ECC 114	Development Economics	4
7	ECC 115	Mathematics For Optimization	4
8	ECC 116	Statistics For Economic Analysis	4
		OPTIONAL COURSES	
9	EC0 117	Labour Economics	4
10	ECO 118	Industrial Relations and Social Security	4
11	ECO 119	Financial Economics	4
12	ECO 120	Human Resource Management and Development	4
13	ECO 121	Agricultural Economics	4
14	ECO 122	Agricultural Development in India	4
15	ECO 123	Indian Public Finance	4
16	ECO 124	Theories of Economics Growth	4
17	ECO 125	Environmental Economics	4
18	ECO 126	Introduction to Econometrics	4
19	ECO 127	Options: Theory and Practice	4
20	ECO 128	International Trade and Globalisation	4
21	ECO 129	International Finance	4
22	ECO 226	Advanced Econometrics	4

Course Code: ECC 111

Title of the Course: Microeconomics-1

Number of Credits: 4

Total Contact Hours:48

Prerequisites for	Students must have basic knowledge of microeconomics.	
the course: Objective:	Knowledge of mathematics will be an added advantage To introduce the students to modern treatment of microeconomics with applications	Contact Hours
<u>Content:</u>	1.Theory of Consumer Behaviour Consumer's tastes: Indifference Curves-Consumer's choice and equilibrium-Income and substitution effects- Derivation of demand curve Applications of Indifference curves - Revealed preference theorem- market demand models-constant elasticity and distributed lag models.	10
	2.Theory of Production and Costs Technology of production-production-Production function- short run and long run-isoquants-Elasticity of substitution- Homogenous and Homothetic -Cobb Douglas Production function - CES,VES production functions-Recent developments-Technical progress and production function- Returns to scale - Choice of least cost combination of inputs. Costs- Short and long run-The L shaped cost curve. Derivation	14
	 of cost function -Duality of cost and production function. 4. The Theory of Competitive Market Perfect competition - short run and long run equilibrium of the firm and industry. Dynamic changes and industry equilibrium: demand changes, cost changes and government taxation. Efficiency in a competitive market. 5.Theory of Imperfect Market: Monopoly Monopoly-price and output determination in monopoly-short	8 10
	 and long run-price discrimination-degrees of price discrimination-Bilateral monopoly-monopoly and welfare loss-Control of monopoly- 6.Monopolistic Competition Monopolistic Competition-product differentiation- Chamberlin's model-price competition and free entry- monopolistic competition and excess capacity. 	6 hours
Pedagogy:	lectures/ case analysis/assignments/class room interaction	

References/Read	
<u>ings</u>	• Baumol W.J (1987), <u>Economic Theory and Operations</u> Analysis, Prentice Hall of India, New Delhi.
	 Cowell A Frank (2006) Microeconomics: Principles
	and Analysis, Oxford University Press, New York
	 Gravelle Hugh and Ray Rees (2008), <u>Microeconomics</u>,
	Pearson Education Inc. and Dorling Kindersely
	Publishing Inc., New Delhi
	• Heathfield and Wibe,(1987), <u>An Introduction to Cost</u>
	and Production Functions, Macmillan, London.
	• Hirshleifer, J, A.Glozer and D Hirshleifer (1997), Price
	<u>Theory and Applications</u> , Cambridge University Press,
	New York
	 Jehle Geoffrey A and Philip J Reny (2008), <u>Advanced</u> Microeconomic Theory, Pearson Education Inc.and
	Dorling Kindersely Publishing Inc., New Delhi
	 Koutsoyannis, A(1983), Modern Microeconomics,
	Macmillan, London.
	• Kreps.A(1992), <u>A Course in Microeconomic Theory</u> ,
	Prentice Hall of India, New Delhi.
	• La manna Manfredi M.A(1997), Readings in
	Microeconomic Theory, The Dryden Press, London.
	• Landsburg E Stevan (2008), <u>Pricing</u> , South Western
	and Centage Learning, New Delhi
	• Maddala G.S and Ellen Muller(1989), Microaconomics: Theory and Applications McGray
	<u>Microeconomics: Theory and Applications</u> , McGraw Hill, Singapore.
	 MasColell Andreu, Michel D Whinston and Jerry
	R.Green(1995), <u>Microeconomic Theory</u> , Oxford
	University Press, Oxford.
	• Pashigian B. Peter(1995), Price Theory and
	Applications, McGraw Hill, New York.
	• Perloff.J.M.(2001), <u>Microeconomics</u> , Addison -
	Wesley Longman, Delhi.
	• Pindyck, Robert, Daniel L .Rubinfeld and Prem L Matha (2000) Microsconomics Baarson Education
	Metha (2009), <u>Microeconomics</u> , Pearson Education and Prentice Hall of India, New Delhi.
	• Sen A (1998), Microeconomics: Theory and
	Applications, Oxford University Press, New Delhi.
	• Stigler, G(1996), <u>Theory of Price</u> , Prentice Hall of
	India, New Delhi.
	• Varian, H. R. (1992), Microeconomic Analysis,
	Norton, New York.
	• Varian, H.R.(1999), Intermediate Microeconomics,
T	Norton, New York.
<u>Learning</u> Outcomes	1. The students will be able to understand the factors that
<u>Outcomes</u>	determine consumption and production decisions.
	acternine consumption and production decisions.

2.	This course will enable the students to analyse and understand price, output and efficient functioning of	
	different markets.	

Course Code: ECC 211

Title of the Course: Microeconomics-11

Number of Credits: 4

Total Contact Hours:48

Prerequisite for	Microeconomics-1	
<u>the course:</u> Objective:	To expose the students to the modern theories of firm, the analytical tools and complex decision making under non competitive conditions	Contact Hours
<u>Content:</u>	1.Oligopoly Market Structure Non Collusive Oligopoly models - Counot, Bertrand, Chamberlin, Sweezy and Stackelberg models-Collusive models-Cartels and Price leadership models.	10
	2.Managerial Theories of Firm Baumol's sales revenue maximisation- Marris maximum rate of growth and profits hypothesis-Williamson's discretion model -Behavioural model of Cyert and March-	10
	3.Theory Of Games	8
	Framework of Game theory- two person zero sum game- Dominant Strategies- Non-zero sum games: Prisoners dilemma-Nash equilibrium- sequential games- repeated games	8
	4. General Equilibrium Factor shares-Technological progress and factor shares- Product Exhaustion theorems-General Equilibrium- General equilibrium in production and exchange -Walrasian Model- Existence, uniqueness and stability of General Equilibrium.	6
	5.Information Economics	0
	Information Economics-Adverse Selection and Moral hazards- Market for Lemons-Pooling and separating equilibrium- signalling and screening-Principal-agent Problem.	6
	6.Linear Programming Linear Programming-linear programming problem-Feasible solution, objective function and optimal solution- Simplex method and iterative procedure.	
Pedagogy:	lectures/ case analysis/assignments/class room interaction	

References/Read ings	 Baumol W.J (1987), Economic Theory and Operations <u>Analysis</u>, Prentice Hall of India, New Delhi. Cowell A Frank (2006) Microeconomics: Principles and Analysis, Oxford University Press, New York Gravelle Hugh and Ray Rees (2008), <u>Microeconomics</u>, Pearson Education Inc.and Dorling Kindersely Publishing Inc., New Delhi Heathfield and Wibe,(1987),<u>An Introduction to Cost and Production Functions</u>, Macmillan, London. Hirshleifer,J, A.Glozer and D Hirshleifer (1997), <u>Price Theory and Applications</u>, Cambridge University Press, New York Jehle Geoffrey A and Philip J Reny (2008), <u>Advanced Microeconomic Theory</u>, Pearson Education Inc.and Dorling Kindersely Publishing Inc., New Delhi Koutsoyannis,A(1983),<u>Modern</u> <u>Microeconomics</u>, Macmillan, London. La manna Manfredi M.A(1997), <u>Readings in Microeconomic Theory</u>, The Dryden Press, London. Landsburg E Stevan (2008), <u>Pricing</u>, South Western and Centage Learning, New Delhi Maddala G.S and Ellen Muller(1989), <u>Microeconomics: Theory and Applications</u>, McGraw Hill, Singapore. MasColell Andreu, Michel D Whinston and Jerry R.Green(1995), <u>Microeconomic Theory</u>, Oxford University Press, Oxford. Pashigian B. Peter(1995), <u>Price Theory and Applications</u>, McGraw Hill, New York. Perloff.J.M.(2001). Microeconomics. Addison - 	
	 University Press, Oxford. Pashigian B. Peter(1995), <u>Price Theory and</u> 	
	 Pindyck, Robert, Daniel L .Rubinfeld and Prem L Metha (2009), <u>Microeconomics</u>, Pearson Education and_Prentice Hall of India, New Delhi. Varian, H.R.(1999), <u>Intermediate Microeconomics</u>, Norton, New York. 	
Learning Outcomes	The students will be equipped with the modern extensions and modifications of the competitive model.	

Course Code: ECC 112

Title of the Course: Macroeconomics-1

Number of Credits: 4

Total Contact Hours:48

Prerequisites for	Nil	
the course:	To understand the role of offective demand in determining	Contact
Objective:	To understand the role of effective demand in determining employment, output and interest rates.	Contact Hours
Content:	employment, output and merest rates.	Tiours
<u>content.</u>	 National Accounts System: UN system of accounts, India's Accounting system, Green Accounting Classical System: Classical model introduction – Employment, labour, supply – Equilibrium output and employment Money prices and interest under classical system – 	6 12
	 Keynesian system: Simple Keynesian Model – Equilibrium income and changes in equilibrium income. Consumption function &. Investment function IS-LM model Policy effects on IS-LM model. Open Economy Macroeconomics (Mundell-Fleming model). 	16 7
	 4. Monetarists, New Classical Economics and New Keynesian: Restatement of quantity theory, National Rate of Unemployment Theory Philips Curve – short run and long run, Rational Expectations Theory. New Keynesian Model – Sticky price, efficiency wage and Insider – Outsider model. 	
	5. Convergence & New Growth Theories: Logic of convergence and explanations of why different countries grow at different rates. Empirical evidence. Endogenous Growth Models of Human Capital, Endogenous Technology and Product, Innovation- Increasing Returns to Scale.	7
Pedagogy:	 Chalk and talk aided by power-point lectures PC lab exercises Assignments and presentations Group activity MOOC (or similar) Component 	
<u>References/Read</u>	Charles Jones 2014, Macroeconomics, W.W. Norton.	

ings	N. Gregory Mankiw, 2015, Macroeconomics Macmillan
	 R. Dornbusch, S. Fishser, R.Startz, 2010, Macroeconomics Mcgraw Hill
	 R.T. Froyen (2014) Macroeconomics: Theories and Policies, Pearson
	Frederic S. Mishkin, 2016, Macroeconomics: Policy & Practice. Pearson
Learning Outcomes	By the end of the course, successful students are expected to understand how critical macroeconomic variables like income, employment, and prices are determined and what are the factors that influence them.

Programme: M. A. Economics

Course Code: ECC 212

Title of the Course: MACROECONOMICS- II

Number of Credits: 4

Total Contact Hours:48

Prerequisites for	Students should have completed Macroeconomics 1 or similar	
the course:	course	
Objective:	To acquaint the students with the role of money and monetary	Contact
<u>Objective.</u>	policy in determining employment, output and interest rates.	Hours
Content:	poney in determining employment, output and interest rates.	Hours
<u>Content.</u>	1. Money and Monetary transmission mechanism Money-Functions. Channels of transmission mechanism- money and credit transmission mechanism.	6
	2. Demand for Money Fishers quantity theory of money-Cambridge equation- Keynesain theory of demand for money-post Keynesain developments-Baumol and Tobin-Quantity theory of money a restatement-Milton Friedman-Empirical evidence on demand for money	12
	3. The Supply of Money Money supply-money multiplier-model of money supply determination-Money supply in India- RBI definitions- Non Banking Financial Intermediaries and money supply	12
	4. Money and the Theory of Interest Rates Theories of interest rates-Classical, neoclassical, and Keynesian, Term structure of interest rates-Yield curve- Theories of term structure of interest rates-Expectation, Market segmentation, and Preferred habitat theories.	10
	 Monetary Policy Goals and targets-strategies for monetary policy- Targeting monetary aggregates-Interest rate targeting- Intermediate targeting- Money stock versus interest rates. 	8
Pedagogy:	 6. Chalk and talk aided by power-point lectures 7. Assignments and presentations 8. Group activity 9. MOOC (or similar) Component 	
References/Read ings	 M Lewis & P Mizen, 2005, Monetary Economics Cambridge University Press ,C Walsh, 2010, Monetary Theory and Policy, MIT Press 	

	R Aliber and C Kindleberger, 2015, Manias, Panics and Crashes: A History of Financial Crises, Palgrave Macmillan
Learning Outcomes	By the end of the course, successful students are expected to understand how money and monetary policy influences income determination and aggregate prices.

Course Code: ECC 113

Title of the Course: Public Economics

Number of Credits: 4

Total Contact Hours:48

<u>Prerequisites for</u>	NIL	
the course:		~
Objective:	To familiarize the students with concepts of welfare	Contact
	economics, market failure, tax, public expenditure, etc.	Hours
<u>Content:</u>	1. General Equilibrium and Welfare Economics Perfect Competition and Pareto Optimality. Social Welfare Functions. Fundamental Theorems of Welfare. Compensation Tests.	08
	2. Market Failure Externalities and Market Processes. Market Failure and the Theory of the Second Best. Information asymmetry and Third Best Policies.	08
	3. Theory of Public Goods Voting Models - Public goods allocation mechanism and Efficiency Conditions	08
	4. Theory of Taxation Principles of Taxation –Principle of Fiscal Neutrality, Excess Burden, Doctrine Principle of Equity, Benefit Principle, Bowen and Lindhal Models, Ability to pay Principle	08
	5 Application of Taxation Principles in Developing Countries Meaning, Types and Measurement of Taxable Capacity.	08
	Incidence of Tax- Issues in Efficiency and Equity, Deadweight losses. Theory of Optimal taxation.6. Theory of Public Expenditure:	08
	Criterion for Public Expenditure- Cost Benefit Analysis, Social Rate of Discount, Shadow Prices.	
Pedagogy:	lectures/ case analysis/assignments/class room interaction	
References/Read ings	 Atkinson, A. & J. Stigltiz (1980) Lectures in Public Economics, McGraw Hill,London. Aurebach, A. & M. Feldstein (eds) (1987) Handbook of Public Economics, Vol.I & II, Elsevier, New York. 	

	F	
	 Baumol, W. J. (Ed.) (2001), Welfare Economics, Edward Elgar Publishing Ltd. U.K 	
Learning Outcomes	 Cornes, R. & T. Sandler (1986) The Theory of Externalities, Public Goods and Club Goods, Cambridge University Press, Cambridge Cullis, J & P. Jones (1999) Public Finance & Public Choice, McGraw Hill, London. Dasgupta, P. & A. Sen and S.Marglin (1972) Guidelines for Project Evaluation, Unido, Vienna. Hindriks J and Gareth D. Myles (2006) Intermediate Public Economics, Prentice-Hall Of India, Delhi. Jha, Raghavendra (1998) Modern Public Economics, Routledge, London. Mundle, S. (ed.) (1997) Public Finance: Policy Issues for India, Oxford University Press, Delhi. Musgrave, R. A. and C. Shoup (Eds.) (1970), Readings in the Economics of Taxation, George Alien and Unwin, London Myles, G. (1997) Public Economic Theory and the Welfare state, Edward Elgar, U.K. Singh S.K. (1986) Public Finance in Developed and Developing Countries, S.Chand, New Delhi. 	
Outcomes	theories of public economics, reasons for market failure and taxation	

Course Code: ECC 114 **Title of the Course: Development Economics**

Number of Credits: 4 Total Contact Hours:48

Prerequisites for the courses	: Nil	
<u>the course:</u> Objective:	To provide students with the essential tools and concepts of development economics and to enhance the students' knowledge of economic problems facing developing countries.	Contact Hours
Content:	 I. Growth and Development Meaning and Criteria – Measures of development – Per Capita Income – Index of Human Development 2. Theories of Economic Development 	05
	Rostow's Stages of Growth- Big Push- Balanced and Unbalanced Growth- Critical Minimal Effort- Ranis Fei	12
	3. Inequality and Development Measures of Inequality – Inequality, Savings and	06
	 Growth – Kuznets Curve 4. Poverty and Development Conceptual issues – Poverty, credit and insurance – Poverty, 	08
	nutrition and labour markets – Poverty and the household . 5. Population and Development	06
	The determinants of fertility – The costs of children –The Optimum Population – The low-level equilibrium trap. 6. Land and Labour in Developing Economies Land market : Principal-Agent Model - Risk, Tenancy and Share Cropping - Land size and productivity Labour Market:	06
	 Role of poverty, nutrition and labour markets 7. Credit and Insurance in Developing Economies Credit Market -Sources of demand for credit – Rural credit markets - Inter-linked markets - Micro-Finance Insurance Market -Basic concepts - Role of information and enforcement. 	05
Pedagogy:	The course will be taught using lectures, discussions, seminars and assignments.	
<u>References/</u> <u>Readings</u>	 <u>References</u>: Behrman,S. and T.N.Srinivasan (1995), <u>Handbook of Development Economics</u>, Elsevier, Amsterdam. Cyphez and Dietz James L. (2009), <u>The Process of Economic Development</u>, <u>Theory</u>, <u>Institutions</u>, <u>Applications and Evidence</u>, Routledge, London. Ghatak Subrata, (2007), <u>Introduction to Development</u> 	

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	Economics, Routledge, London.
	• Hayami, Y. (2001), Development Economics, Oxford
	University, Press, New York.
	• Meir Gerald M. and Rauch James (2010), Leading
	issues in Economic Development, Oxford University
	Press, Delhi.
	• Nafziger , E. W(2006), <u>Economic Development</u> ,
	Cambridge University Press, New York
	• Naqvi, Syed N. H., (2002), Development Economics -
	Nature and Significance, Sage Publications, Delhi.
	• Naqvi, Syed N. H., (2015), Economics of
	Development, Sage Publications, Delhi.
	• Pattanaik B.K., (2016), Introduction to Development
	Studies, Sage Publications, New Delhi.
	• Peet Richard and Hartwick Elaine, (2005), <u>Theories of</u>
	Development, Rawat Publications, New Delhi.
	• Ray, Debraj, (2010), <u>Development Economics</u> , OUP,
	Delhi.
	• Schaffner Julie, (2014), <u>Development Economics</u> ,
	Wiley, U.S.A.
	• Thirlwall, A.P.(2008), Growth and Development,
	Macmillan, U.K.
	• Thirlwall, A.P.(2011), Economics of Development,
	Palgrave Macmillan, New York.
	• Todaro Michael P. And Smith S.C., (2012), Economic
	Development, Pearson, India
Learning	
Outcomes	On satisfying the requirements of this course, students will be
	able to critically evaluate economic problems of developing
	countries.

Course Code: ECC 115 Title of the Course: Mathematics for Optimisation

Number of Credits: 4 Total Contact Hours: 48

Prerequisites for	Nil	
the course: Objective:	To learn the mathematical tools and concepts that aid in	Contact
Objective.	analysing economic optimisation.	Hours
Content:	1. Vectors and Matrices	16
	 Vectors, Vector Spaces, Linear Dependence, Basis. Elementary operations with Matrices, Equivalence, Determinants, Inverse of Matrix, Rank of a Matrix, Cramer's Rule. Introduction to Input-Output techniques. 2. Functions & Limits: 	
	Limit of a function, continuity, Necessary and sufficient conditions.	4
	3. Differentiation	10
	Rules of differentiation: Total derivatives and Partial derivatives. Maxima and minima, points of inflexion. 4. Optimisation – Unconstrained & Constrained	10
	Application to economics: cost curves, demand curves, Theory of the consumer and Theory of the Firm under Perfect and Imperfect Competition.	
	5. Integration:	8
	Reimann integral, Fundamental Theorem of the calculus, Techniques of integration and Definite integrals. Applications in economics: Theory of the firm (cost) & Growth	
Pedagogy:	10. Chalk and talk aided by power-point lectures	
	11. PC lab exercises	
	12. Android based activity	
	13. Assignments and presentations	
	14. Group activity	
	15. MOOC (or similar) Component	
References/Read	A.C. Chiang, (1995) Fundamental Methods in	
<u>ings</u>	Mathematical Economic McGraw Hill, New York	
	 Simon, Carl P. & L. Blume(1994) Mathematics for 	

	 Economists W.W. Norton, New York Sydsaeter and Hammond (2004), Mathematics Of Economics Analysis, Pearson.
<u>Learning</u> Outcomes	By the end of the course, successful students are expected to understand how mathematical concepts aid in understanding optimisation in economics.

Course Code: ECC 116

Title of the Course: STATISTICS FOR ECONOMIC

ANALYSIS

Number of Credits: 4 Total Contact Hours:48

<u>Prerequisites for</u> the course:	Nil	
Objective:	To learn the statistical techniques and concepts that aid economic analysis.	Contact Hours
Content:	1. Probability Sample Space, Random Variable, Addition and multiplication theorem-Conditional Probability, Bayes Theorem, Distribution Function, Mathematical Expectation, Measures of central tendency and variance.	12
	2. Probability Distributions : Discrete, Continuous and Sampling Distributions: Binomial, Poisson, Normal, Standard Normal, Student-t, Chi-Square, F- distribution.	12
	3. Testing of Hypotheses: Concepts & Applications Testing of Hypothesis; Null and Alternative Hypothesis, Type I & II errors. Levels of Significance. Testing mean, proportion -single and two populations. Testing t, z, F, chi-square test.	12
	5. Correlation & Regression: Covariance, Correlation, Rank Correlation. Introduction to Two Variable Regression.	12
Pedagogy:	 16. Chalk and talk aided by power-point lectures 17. PC lab exercises 18. Android based activity 19. Assignments and presentations 20. Group activity 21. MOOC (or similar) Component 	
<u>References/Read</u> ings	 Mark L. Berenson, David M. Levine, Kathryn A. Szabat (2015), Basic Business Statistics, Pearson publication David M. Levine, Kathryn A. Szabat, David F. Stephan, Statistics For Managers Using Ms Excel, 	
Learning Outcomes	By the end of the course, successful students are expected to understand basic statistical techniques and be in preparation for learning Econometrics	

Course Code: ECO 117 Title of the Course: Labour Economics

Number of Credits: 4 Total Contact Hours:48

Prerequisites for	NIL	
the course:		
<u>Objective:</u>	To develop students' abilities in acquiring a better understanding of the functioning of labour markets.	Contact Hours
<u>Content:</u>	1. The Supply of Labour	10
	 Supply of labour by an individual, by a household to an economy – A Household model of labour supply – A bargaining model of family labour supply – Changes in work participation over time: The decline in male participation rates; the increase in female participation rates – Labour force growth during recessions: The Added Worker Effect-The Discouraged Worker Effect - Classical Theory of Job Choice - Modern Theory in terms of investment in Human Capital - Migration. 2.The Demand for Labour 	07
	The individual firm's demand for labour in the short run - The individual firm's demand for labour in the long run - Industry demand for labour - Elasticity of demand for labour.	04
	3. The Labour Market	
	Definition of the labour market – Differences between Labour Markets and Commodity Markets - Labour Market Structure: Structured Labour markets- Unstructured	07
	Labour Markets-Internal and External Labour markets- Primary and Secondary Labour Markets.	06
	4. Theories of Labour Market Discrimination Types of discrimination – Taste-for- discrimination model – Market Power: The Monopsony model – Theory of Statistical discrimination – The Crowding model.	

	5. Employment	
	Types of unemployment – The measurement of unemployment – Causes of unemployment: Job Search (The Stigler model, The McCall model)-Rigid wages- Efficiency wages.	08
	6. Wage Determination	
	Wage determination in a perfectly competitive market – Wage determination in a Monopsony market – Minimum wage – Minimum wage in a perfectly competitive market – Minimum wage in a monopsony market – The minimum wage and efficiency wage theory – Segmentation and Dual Labour Market Theory.	06
	7. Productivity	
	Concept - Measurement – Importance of productivity increases - Factors influencing labour productivity - Productivity and inflation - Productivity and employment.	
Pedagogy:	The course will be taught using lectures, discussions, seminars and assignments.	
References/Read	<u>References</u> :	
ings	 Ashenfelter Orley C., David C., (2010), <u>Handbook of</u> <u>Labour Economics</u>, Vol. 3C, North Holland, U.K. 	
	 Basu Kaushik, (Ed.)(2002), <u>International Labour</u> <u>Standards: History, Theories and Policy Options</u>, Wiley-Blackwell 	
	Standards: History, Theories and Policy Options,	
	 <u>Standards: History, Theories and Policy Options,</u> Wiley-Blackwell Bauder Harold,(2006), <u>Labour Movement: How</u> 	
	 <u>Standards: History, Theories and Policy Options,</u> Wiley-Blackwell Bauder Harold,(2006), <u>Labour Movement: How</u> <u>Migration Regulates Labour Markets</u>, OUP, USA Bloom G.F. and Northrup H.R., (1977), <u>Economics of</u> <u>Labour Relations</u>, Richard D. Irwin, Inc. Homewood, 	
	 <u>Standards: History, Theories and Policy Options,</u> Wiley-Blackwell Bauder Harold,(2006), <u>Labour Movement: How</u> <u>Migration Regulates Labour Markets</u>, OUP, USA Bloom G.F. and Northrup H.R., (1977), <u>Economics of</u> <u>Labour Relations</u>, Richard D. Irwin, Inc. Homewood, Illinois. Borjas G.J. (2015), <u>Labour Economics</u>, McGraw-Hill, 	
	 <u>Standards: History, Theories and Policy Options</u>, Wiley-Blackwell Bauder Harold,(2006), <u>Labour Movement: How</u> <u>Migration Regulates Labour Markets</u>, OUP, USA Bloom G.F. and Northrup H.R., (1977), <u>Economics of</u> <u>Labour Relations</u>, Richard D. Irwin, Inc. Homewood, Illinois. Borjas G.J. (2015), <u>Labour Economics</u>, McGraw-Hill, New York. Cahuc Pierre, Zylberberg A., (2014), <u>Labour</u> 	

	<u>Fundamentals of Labour Economics</u> , South – Western College Publishing, USA.
	 Jacobson J., Skillman G., (2002), <u>Labour Markets and</u> <u>Employment Relationships: A Comprehensive</u> <u>Approach.</u>
	 Kaufman B.E. and Hotchkiss J.L.(2006), <u>Labour</u> <u>Market Economics</u>, Cengage Learning, India.
	• Laing Derek, (2011), <u>Labour Economics: Introduction</u> to Classic and the New Labour Economics, W.W. Norton and Co., USA.
	 McConnell, C.R. and S.L.Brue and Macpherson, (2010), <u>Contemporary Labour Economics</u>, McGraw Hill Irwin, New York.
	 Reynolds L.G. (1998), <u>Labour Economics and Labour</u> <u>Relations</u>, Prentice Hall, USA
	 Sapsford David,(1983), <u>The Economics of the Labour</u> <u>Market</u>, George Allen and Unwin Ltd., London.
	 Smith S.W.(2003), <u>Labour Economics</u>, Routledge, London.
	• Sloane Peter et al (2012), Modern Labour Economics, Routledge, U.S.A.
Learning Outcomes	Students will be able to think independently on various issues related to labour markets.

Course Code: ECO 118 **Title of the Course:** Industrial Relations And Social Security

Number of Credits: 4 Total Contact Hours:48

<u>Prerequisites for</u> the course:	NIL	
Objective:	To familiarise the students with the issues related to Industrial Relations and Labour Welfare.	Contact Hours
Content:	1.Industrial Relations	06
	Concept – Importance of Industrial Relations – Scope and Aspects of Industrial Relations – Factors Affecting Industrial Relations	
	2. Industrial Disputes	10
	Concept – Classification of Industrial Disputes - Causes of Industrial Disputes - Steps to achieve industrial peace - Methods of settlement of industrial disputes.	09
	3. Worker's Participation in Management	
	Concept – Objectives – Forms of Participation – Levels of Participation – Forms of Worker participation in India	
	4. Theories of the Labour Movement	08
	Karl Marx, The Webbs, Perlman, KDHM (Kerr, Dunlop, Harbison and Myers)	
	5. Trade Unions in India	07
	Concept of a trade Union – features and functions -Growth and structure of Trade Unionism in India – Problems of Trade Unions	
	5. Social Security and Labour Welfare	08
	Concept of Social Security and Labour Welfare in India - Important labour legislations in India : Industrial Disputes Act - Trade Unions Act, Factories Act and Employees State	

	Insurance Act	
Pedagogy:	The course will be taught using lectures, discussions, seminars and assignments.	
References/Read ings	References : • Agarwala Ramgopal et al, (2004), Reforms, Labour Markets and Social Security, OUP, New Delhi. • Addison J.T., Schnabei C., (2003), International Handbook of Trade Unions, Edward Elgar. • Budd John W. (2017), Labour Relations, McGraw Hill Higher Education, U.S.A. • Jhabvala,R. and R.K. Subrahmanya (Eds.)(2000), The Unorganised Sector : Work Security and Social Protection, Sage Publications, New Delhi. • Mamoria C.B.& Mamoria S.(2008), Dynamics of Industrial Relations, Himalaya Publishing House, Mumbai. • McConnell C.R. and Brue S.L. (2007), Contemporary Labour Economics, McGraw-Hill, New Delhi. • Sen Ratna, (2008), Industrial Relations in India, Macmillan India Ltd. • Sinha P.R.N. et al, (2012), Industrial Relations, Trade Unions and Labour Legislations, Pearson Education, India. • Sivarethinamohan R. (2010), Industrial Relations and Labour Welfare, PHI Learning, New Delhi. • Venkataramana P. (2007), Industrial Relations, APH Publishing Corporation, New Delhi.	
<u>Learning</u> <u>Outcomes</u>	The students will know about the origin of labour movement, industrial disputes resolution and important labour legislations in India.	

Course Code: ECO 119

Title of the Course:Financial Economics

Number of Credits: 4

Total Contact Hours:48

Prerequisites for	Basic Knowledge of Microeconomics and Mathematics	
the course: Objective:	To provide students with an understanding of financial	Contact
	markets and related theories.	Hours
Content:	 Indian Capital Market Stock Markets- Mutual funds-Venture Capital- Regulatory mechanism: Role of SEBI Valuation of financial assets 	10
	Time value of money-Money and asset pricing- Risk and return-Shares-Bonds 3.Asset Pricing Theories	04
	Portfolio theory-Capital asset pricing model-Arbitrage pricing theory 4.Futures Market	04
	Mechanics of futures and forward markets-Determination of forward and futures prices- Hedging-Stock futures, index futures- Interest rate futures 5. Options Market	15
	Mechanics of options market-Call option-Put option-Pricing of stock options-Black-Scholes model- Hedging using options	15
Pedagogy:	lectures/ case analysis/assignments/class room interaction study the actual IPO'S,	
References/Read ings	 D.E. Fisher and R.J. Jordan –(2001) Security Analysis and Portfolio Management, Prentice-Hall/Pearson Edu., 6th Edition, Eates Brian A,(2000), Financial Engineering, Macmillan, London. Eichberger J and Ian.R. Harper,(1997), Financial Economics, Oxford University Press,Oxford. Hull(2001), Introduction to Futures and Options Markets, Prentice Hall of India, New Delhi. Hull(2008) Fundamentals of futures and options markets 7th edition, Prentice Hall Keith Redhead,(1998) Financial Derivatives, Prentice-Hall of India, New Delhi. Kohn Meir(1994), Financial Institutions and Markets, Macgraw Hill, New York. Le Roy Stephen and Jan Werner(2001), Principles of 	

	 Financial Economics, Cambridge University Press, New York. Levinson Marc (1999), Guide to Financial Markets, Profile Books, London. Martin Antony and Norman Biggs(2000), Mathematics for Economics and Finance, Oxford University Press, Oxford. Pilbeam Keith(1998), Finance and Financial Markets, Palgrave , New Delhi. Reilly Frank K and Keith C. Brown,(2007) Investment Analysis and Portfolio Management, 8th edition, Thomson Learning, Vijay Baskar P and B.Mahapatra,(2002), Derivatives Simplified , Sage Publishers, New Delhi.
<u>Learning</u> Outcomes	The students will be able to understand and analyse issues related to finance.

Course Code: ECO 120 Ti

Title of the Course: Human Resource Management and

Development

Number of Credits: 4 Total Contact Hours:48

<u>Prerequisites for</u>	NIL	
the course: Objective:	To familiarise students with designing, implementation and evaluation of HRD programmes in a corporate setting	Contact Hours
Content:		
	1. Introduction to Human Resource Development	07
	The evolution of HRD - The relationship between HRD and HRM - HRD functions - Roles of an HRD Professional - Challenges to HRD Influence on Employee Behaviour	
	2. External influences on Employee Behaviour - Motivation : An Internal influence on Employee Behaviour - Other Internal Factors that Influence Employee Behaviour - Environmental Influences on Employee Behaviour.	07
	3.Assessment of HRD needs	07
	Definition and Purposes of Needs Assessment - Organisational Analysis - Task Analysis - Person Analysis - Prioritising HRD needs.	07
	4.Designing HRD Programs	07
	Defining Program Objectives - Purchasing HRD Programs - Selecting the Trainer - Preparing a Lesson Plan - Selecting Training Methods	12
	5. Implementing HRD Programs	
	Training Delivery Methods – On-the-Job Training Methods - Classroom Training Methods - Scheduling the Training Program - Implementing the Training Program.	08

	6. Evaluating HRD Programs	
	The purpose of HRD Evaluation - Models of Evaluation - Data Collection for HRD Evaluation - Research Design - Ethical Issues of Evaluation research.	
Pedagogy:	The course will be taught using lectures, discussions, seminars and assignments.	
References/Read ings	 <u>References</u>: DeSimone R.L. & Harris D.M. (2012), <u>Human</u> <u>Resource Development</u>, Cengage Learning, U.S.A. Deb Tapomay (2012), <u>Human Resource Development</u>, Ane Books Pvt. Ltd., Mumbai. Haldar U.K. (2009), <u>Human Resource Development</u>, OUP, New Delhi. Mankin David (2009), <u>Human Resource Development</u>, OUP, New York. Megginson D., (2001), <u>Human resource Development</u>, OUP, USA. Mitchell D.J.B. and Zaidi M.A. (1990), <u>The Economics of Human Resource Management</u>, Basil Blackwell, Cambridge. Rao T.V. (2010), <u>Human Resource Development</u>, Oxford and IBH Publishing Co.Pvt. Ltd., Werner J.M., (2007), <u>Human Resource Development</u>, South Western Educational Publishing. 	
<u>Learning</u> <u>Outcomes</u>	After completing the course the students will be able to design, implement and evaluate HRD programmes.	

Course Code: ECO 121

Title of the Course: Agricultural Economics

Number of Credits: 4

Total Contact Hours:48

<u>Prerequisites for</u>	NIL	
the course:		~
Objective:	To introduce the students to the functioning of Agricultural	Contact
	Markets	Hours
Content:	1. Agriculture and Economic Development	10
	Traditional vs. Modern Agriculture. Role of agriculture in	
	economic development;	
	Interdependence between agriculture and industry	
	2. Demand for agricultural commodities	
	Special characteristics - Effects of population, prices, and	04
	income on demand.	
	3. Supply of agricultural commodities	
	Special characteristics - Supply of individual commodities and	04
	aggregate supply - Effects of	
	price on supply	
	4. Agricultural prices	08
	Peculiar characteristics - Cob web cycle price income problem	
	- Farmers dilemma -	
	Administered prices : types and determination - Price	
	Quotations.	08
	5. Agricultural production	
	Production decisions by a rational farmer -Risk and	
	uncertainly. Resource use and efficiency;	
	production function analyses in agriculture; Factor	
	combination and resource substitution	05
	6. Land and Capital Markets	
	Characteristics - Lease market - Capital market - Role of credit	
	and peculiarities	04
	7. Labour Markets	
	Characteristics and structure.	05
	8. Agricultural Marketing	
	Characteristics - Free trade - Cooperative Markets - Regulated	
	Markets.	
Pedagogy:	lectures/ case analysis/assignments/class room interaction	
References/Read	American Economic Association (1970) Readings in	
<u>ings</u>	the Economics of Agriculture Allen Unwin, London.	
	• Bishop C.E. and W.D Tansaint (1958), An	
	Introduction to Agricultural Economic Analysis, J.	
	Wiley, New York.	
	• Capstice M. (1970), Economics of Agriculture, Allen	
	and Unwin, London	

	 Ghatak, (1984), Agriculture and Economic Development, Prentice Hall, New York. Snodgross and Wallace (1977), Economic, Agriculture and Resource Management, Prentice Hall, New Delhi. 	
<u>Learning</u> Outcomes	The students will be able to understand issues related to agricultural production and markets.	

Course Code: ECO 122 India

Title of the Course: Agricultural Development in

Number of Credits: 4

Total Contact Hours:48

Prerequisites for	NIL	Contact
the course:		Hours
Objective:	To understand the agricultural development, problems faced and Government policies in India	
<u>Content:</u>	1. WTO and Indian Agriculture Agricultural Imports and Exports . Agricultural Export- Import Polices – history and recent changes Agreement on Agriculture under WTO. Impact of WTO on Agriculture. Problems of Agricultural	10
	exports – imports 2. Land reforms Aims and objectives - Evaluation of land reforms - New Economic Policy and land reforms.	05
	 3. Agricultural Price Policy in India Its role in Green Revolution- Functions of CACP, PDS and FCI - Evaluation of Agricultural Price Policy in India - Agricultural Price Policy under the New Economic Policy. 4. Agricultural Credit in India 	08
	 Organized and unorganized Credit Markets - Cooperative credit - Role of commercial banks - Evaluation of agricultural credit in India. 5. Agricultural marketing in India 	05
	Organized, regulated, cooperative and Unorganized markets - Evaluation. Forward trading	05
	6. Indian Agricultural Problems Inputs for Indian agriculture, Agriculture Input subsidy - Irrigation policy- user charges.	05
	Recent Agricultural Problems in India 7 . Strategy for agricultural development Institutional reforms vs. Technological change - Biotechnology, Green Revolution - Nature - Progress and present problems - Trends in investment in Agriculture - Issues in	10
	Agricultural Taxation. Impact of agricultural development, New developments in commodity derivatives in India.	
Pedagogy:	lectures/ case analysis/assignments/class room interaction	
References/Read ings	• Ajit Singh (1993) Economic Crisis and Third World Agriculture <i>Cambridge University press</i>	

 Bhaduri, A. (1984), The Economic Structure of Backward Agriculture, Macmillan, Delhi.
 Bhalla G.S and Gurnail Singh (2001), Indian Agriculture, Sage Publishers, New Delhi
• Bilgram, S. A. R. (1996), Agricultural Economics,
Himalaya Publishing House, Delhi
• Chakravarty S (1987) : Development Planning , The
Indian Experience, Oxford University Press, New Delhi.
• Dantwala M.L. (ed.) (1991) Indian Agricultural
Development since Independence,
• Oxford Production conditions in Indian Agriculture :
Cambridge University Press.and IBH, New Delhi.
• Dantwala M.L.(1996), Dilemmas of Growth: The
Indian Experience : Sage Publishers
• , New Delhi.
• Dhawan, B.D.(1988), Irrigation In India's Agricultural
Development, Sage
Publications, New Delhi.
• Ghatak (1984), Agriculture and Economic
Development, Prentice Hall, New York
• Government of India, (1976) Report of the National
Commission on Agriculture,
 Economic Survey annual, New Delhi. Culati Ashek and Tim Kally (1990) Trade
Gulati Ashok and Tim Kelly (1999), Trade Liberalization and Indian Agriculture Oxford
Liberalisation and Indian Agriculture,Oxford
University Press, U.K.Johnson P.A. (2003) Development Issues of Indian
Economy Manan Prakashan.
• Joshi P.C.(1975) Land Reforms in India : Trends and
Prospects, Allied Publishers, Bombay.
• Kapila Uma (ed) (2003) Indian Economy Since
Independence. Academic Foundation
• Karmakar K.G (1999), Rural Credit and Self Help
Groups, Sage Publications, NewDelhi.
• Rao C.H.H.(1975) Agricultural Growth, Rural Poverty
and Environmental Degradation in India, Oxford
University Press, New Delhi.
• Rao, C. H. Hanumantha (1994), Agricultural Growth,
Rural PovertyAnd Environmental Degradation in India, Oxford University Press, New Delhi.
 Rudra Ashok (1982), Indian Agricultural Economics :
Myths and Reality, Allied Publishers, New Delhi.
 Saini G.R.(1979), Farm Size Resource Use Efficiency
and Income Distribution, Allied Publishers, New
Delhi.
• Singh B.K. and Pushpendra (2000), Land Reforms in
India: An Unfinished Agenda, Sage Publications, New
Delhi.

	Subbarao, K. and De Janvry (1986), Agricultural Price Policy and Income Distributionin India, Oxford University press, New Delhi.
<u>Learning</u> Outcomes	The students will be able to understand agricultural development in India and analyse its progress.

Course Code: ECO 123

Title of the Course: Indian Public Finance

Number of Credits: 4

Total Contact Hours:48

Prerequisites for	NIL	
the course: Objective:	To understand the policies, institutions and components of Indian Public Finance.	Contact Hours
Contont:		Hours
<u>Content:</u>	1. Allocation of Resources and the Budgetary Process Indian System of allocation- Constitutional and other mechanisms. Changes in devolution systems and role of budget in providing framework for growth and stabilisation. Government Budgeting, Budget -meaning and components, presentation and execution of Budget. Economic classification of Budget. Revenue and capital account. Budget deficit and their implications.	08
	 2. Black Economy Estimates of black economy in India. Its impact on income, prices and effectiveness of economic policy. 3. Indian Tax System: 	08
	 Alternative Sources of Taxation of Goods and Services in India: Direct and Indirect taxes. 4. Deficits and Debt 	08
	Impact on growth, prices and employment. Central and State- level distribution of borrowings- impact on growth (National and Regional).Deficit Financing - Meaning and Objectives of Deficit Financing. Trends in Different Types of Deficits Since 1991-Deficit Financing in India. Effects of Deficit Financing on Indian Economy. Assessment of the Recent Central Government Budget.	08
	5. Indian Expenditure System : Revenue & Capital, Development and Non-development, Plan and Non-plan: Trends and impacts. Changes in structure of expenditure of the Centre and states- consequences on	08
	 growth and welfare. 6. Fiscal Federalism: Logic of devolution of resources between different tiers of Government . Allocation of financial responsibilities of revenue and expenditure. 	08
Pedagogy:	lectures/ case analysis/assignments/class room interaction	
References/Read ings	 Chelliah, R. (1995) Sustainable Economic Growth, Oxford University Press, Delhi. Kumar, A.(2001), The Black Economy of India, 	

	 Penguin, Harmondsworth. Rao, M. Govinda and Nirvikar Singh (2005), Political Economy of Fiscal Federalism in India, New Delhi: Oxford University Press Shome, P(1995) Tax Policy: A Handbook, IMF, Washington. Srivastava D.K(2005) Issues in Indian Public Finance,
	• Srivastava D.K(2005) Issues in Indian Public Finance, New Century Publications
Learning	
<u>Outcomes</u>	The students will be able to understand the budgetary process,
	documents and analyse Government's fiscal policy.

Course Code: ECO 124

Title of the Course: Theories of Economic Growth

Number of Credits: 4

Total Contact Hours:48

<u>Prerequisites for</u>	NIL	
the course: Objective:	To introduce students to the theories and empirics of growth	Contact Hours
Content:	1. Capital and Technical Progress	08
	The role of capital in development – The Capital-Output Ratio – Capital and Labour Saving Technical Progress – Harrod and Hicks' classification of technical progress – Investment in Human Capital.	
	2. The Choice of techniques	08
	The capital intensity of techniques in developing countries – The conflict between employment and output and employment and saving in the choice of techniques – Support of the unemployed – Use of taxes and subsidies to reconcile the conflict between employment and saving.	12
	3. Classical Theories of Growth	
	Classical - Adam Smith – Ricardo – Malthus -Marx	
	Schumpeter - The Production Process – Schumpeter's view of the system – Growth and development of an economy - Business fluctuations and the Process of Development.	07
	4. Keynesian Theory of Growth	
	Harrod – Domar Model - The conditions required for steady growth – Domar's model of economic growth – Harrod's model of economic growth – Comparison of the two models - Critical evaluation of the Harrod-Domar models.	
	5. Neoclassical Theories of Growth	05
	Solow – Meade - Issues of Stability, Exogenous technical progress and population growth	

	6. Cambridge Models of Growth	08
	Joan Robinson – assumptions-structure of the model-the golden age-various types of golden and platinum age-critical evaluation of the model- Kaldor's model	
Pedagogy:	Lectures, written assignments, seminar presentations	
References/Read	References	
ings	 Barro, R. and X. Sala-I-Martin (2003) Economic <u>Growth</u>, McGraw Hill, New York. Berg Hendrick Van Den Berg (2017), Economic <u>Growth and Development</u>, World Scientific. Gylafson, T. (1999) Principles of Economic Growth, Oxford University Press, Oxford. Jones, Charles (2006) Introduction To Economic <u>Growth</u>, Viva Books Pvt. Ltd., New Delhi. Lucas, Robert E (2002), Lectures on Economic <u>Growth</u>, OUP, New Delhi. Nafziger ,E. W(2012), Economic Development, Cambridge University Press, New York Rutton Vernon W. (2001), Technology, Growth and <u>Development, OUP, Nw York.</u> Sen, A. (1990) (ed.) <u>Growth Theory</u>, Penguin Books, Harmondsworth. Ray, Debraj, (2014), <u>Development Economics</u>, OUP, Delhi. Solow, R. (2000) <u>Growth Theory</u>, Oxford University Press, Oxford. Thirlwall, A.P. (2006) <u>Growth And Development</u>, With Special Reference To Developing Economies, 	
	Palgrave Macmillan, New York.	
<u>Learning</u> <u>Outcomes</u>	Upon completion of this course students should be able to discuss the important models, theories and implications of the alternative approaches to growth.	

Course Code: ECO 125 Title of the Course: ENVIRONMENTAL ECONOMICS

Number of Credits: 4 Total Contact Hours:48

Prerequisites for the course: Nil Contact Objective: To Learn the implications of production and consumption outcomes on the environment and how market and non-market tools can be used in policy-making to move towards sustainable development. Contact Hours Content: Total Contact hours: 48 1 Inter-linkages and Trade-offs, Poverty, Environment and Development debate. Issues of Climate Change – Adaptation and Mitigation 12 2. Theory of Externalities & Environmental Policy 12 Missing Markets, Non-convexity, Non-linearity, Public Goods, Common Property Resources, Coase Theorem and Issues in Property Rights; Pigouvian Taxes, Subsidies, Tradable Permits, Price v/s Quantity tools 12 3. Sustainable Development Renewable and Non-renewable Resources - Optimal Use under different market Structures. 12
Objective:To Learn the implications of production and consumption outcomes on the environment and how market and non-market tools can be used in policy-making to move towards sustainable development.Contact HoursContent:Total Contact hours: 481I. Environment & Economy Inter-linkages and Trade-offs, Poverty, Environment and Development debate. Issues of Climate Change – Adaptation and Mitigation122. Theory of Externalities & Environmental Policy Missing Markets, Non-convexity, Non-linearity, Public Goods, Common Property Resources, Coase Theorem and Issues in Property Rights; Pigouvian Taxes, Subsidies, Tradable Permits, Price v/s Quantity tools123. Sustainable Development Renewable and Non-renewable Resources - Optimal Use12
outcomes on the environment and how market and non-market tools can be used in policy-making to move towards sustainable development.HoursContent:Total Contact hours: 4811. Environment & Economy12Inter-linkages and Trade-offs, Poverty, Environment and Development debate. Issues of Climate Change – Adaptation and Mitigation122. Theory of Externalities & Environmental Policy Missing Markets, Non-convexity, Non-linearity, Public Goods, Common Property Resources, Coase Theorem and Issues in Property Rights; Pigouvian Taxes, Subsidies, Tradable Permits, Price v/s Quantity tools123. Sustainable Development Renewable and Non-renewable Resources - Optimal Use12
tools can be used in policy-making to move towards sustainable development.Content:Total Contact hours: 481. Environment & Economy Inter-linkages and Trade-offs, Poverty, Environment and Development debate. Issues of Climate Change – Adaptation and Mitigation122. Theory of Externalities & Environmental Policy Missing Markets, Non-convexity, Non-linearity, Public Goods, Common Property Resources, Coase Theorem and Issues in Property Rights; Pigouvian Taxes, Subsidies, Tradable Permits, Price v/s Quantity tools123. Sustainable Development Renewable and Non-renewable Resources - Optimal Use12
sustainable development.Content:Total Contact hours: 481. Environment & Economy12Inter-linkages and Trade-offs, Poverty, Environment and Development debate. Issues of Climate Change – Adaptation and Mitigation122. Theory of Externalities & Environmental Policy12Missing Markets, Non-convexity, Non-linearity, Public Goods, Common Property Resources, Coase Theorem and Issues in Property Rights; Pigouvian Taxes, Subsidies, Tradable Permits, Price v/s Quantity tools123. Sustainable Development Renewable and Non-renewable Resources - Optimal Use12
sustainable development.Content:Total Contact hours: 481. Environment & Economy12Inter-linkages and Trade-offs, Poverty, Environment and Development debate. Issues of Climate Change – Adaptation and Mitigation122. Theory of Externalities & Environmental Policy12Missing Markets, Non-convexity, Non-linearity, Public Goods, Common Property Resources, Coase Theorem and Issues in Property Rights; Pigouvian Taxes, Subsidies, Tradable Permits, Price v/s Quantity tools123. Sustainable Development Renewable and Non-renewable Resources - Optimal Use12
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Development debate. Issues of Climate Change – Adaptation and Mitigation122. Theory of Externalities & Environmental Policy12Missing Markets, Non-convexity, Non-linearity, Public Goods, Common Property Resources, Coase Theorem and Issues in Property Rights; Pigouvian Taxes, Subsidies, Tradable Permits, Price v/s Quantity tools123. Sustainable Development Renewable and Non-renewable Resources - Optimal Use12
and Mitigation122. Theory of Externalities & Environmental Policy12Missing Markets, Non-convexity, Non-linearity, Public Goods, Common Property Resources, Coase Theorem and Issues in Property Rights; Pigouvian Taxes, Subsidies, Tradable Permits, Price v/s Quantity tools123. Sustainable Development Renewable and Non-renewable Resources - Optimal Use12
2. Theory of Externalities & Environmental Policy 12 2. Theory of Externalities & Environmental Policy Missing Markets, Non-convexity, Non-linearity, Public Goods, Common Property Resources, Coase Theorem and Issues in Property Rights; Pigouvian Taxes, Subsidies, Tradable Permits, Price v/s Quantity tools12 3. Sustainable Development Renewable and Non-renewable Resources - Optimal Use12
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Goods, Common Property Resources, Coase Theorem and Issues in Property Rights; Pigouvian Taxes, Subsidies, Tradable Permits, Price v/s Quantity tools12 3. Sustainable Development Renewable and Non-renewable Resources - Optimal Use12
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Issues in Property Rights; Pigouvian Taxes, Subsidies, Tradable Permits, Price v/s Quantity tools12 3. Sustainable Development Renewable and Non-renewable Resources - Optimal Use12
Tradable Permits, Price v/s Quantity tools12 3. Sustainable Development Renewable and Non-renewable Resources - Optimal Use12
3. Sustainable Development Renewable and Non-renewable Resources - Optimal Use12
Renewable and Non-renewable Resources - Optimal Use
Renewable and Non-renewable Resources - Optimal Use
12
4. Issues in Valuation
Costs and Benefits. Use Values, Non-use Values, Option Values, Discount Rates
Pedagogy:22. Chalk and talk aided by power-point lectures23. PC lab exercises
24. Assignments and presentations
25. MOOC (or similar) Component
References/Read • Tom Tietenberg (2007), Environmental Economics and Paliau by Pageson
ings Policy, by, Pearson
• Hanley, Nick, Shogren, Jason, White, Ben (
2007)Environmental Economics In Theory & Practice,
Pearson
 Stagl, Sigrid, Common, Michael (2005) Ecological
Economics An Introduction, Cambridge University
Press
Learning Successful students will learn to integrate environmental
Outcomes concerns with economic development

Course Code: ECO 126

Title of the Course: Introduction to Econometrics

Number of Credits: 4

Total Contact Hours:48

<u>Prerequisites for</u>	Students must have basic knowledge of Statistical and	
the course: Objective:	Mathematical methods To provide students exposure to econometric theory, model	
<u>Objective:</u>	building and data analysis	
<u>Content:</u>	 1. Two-Variable Regression Analysis: Introduction to Econometric Software: Statistical/ Econometric Software for data analysis. Sample and Population Regression Function. Linearity in variables and coefficients. Ordinary Least Squares (OLS) - Gaussian Classical model. Assumptions and Properties of OLS Estimates; The Co- efficient of determination - R², Testing of Hypothesis 2. Multiple regression analysis: Problems of Estimation - The three - variable model Interpretation - Partial Regression Coefficients - Multiple co- 	10
	 efficient of determination R² (R bar square) Functional forms of regression models; Omitted variables, Specification tests, Ramsey RESET test, Wald, LM test 3. Autocorrelation: OLS Estimation in the presence of Autocorrelation; 	8
	 Consequences - Detection - Remedies. 4. Heteroscedasticity: OLS Estimation in the presence of Heteroscedasticity – Tests of Heteroscadasticity- Remedies Methods of Generalised Least Squares (GLS); 	4
	5. Multi-collinearity : Estimation in the presence of perfect and imperfect multi- collinearity - practical consequences of multi-collinearity - detection - remedies.	10
	4. Regression on Dummy Independent Variables The nature of dummy variables - Regression using quantitative variable and qualitative variable-Application of Dummy Variables' approach	6
Pedagogy:	lectures/ case analysis/assignments/class room interaction/lab	

References/Read ings	 <u>References</u> Asteriou Dimitrious,(2006), <u>Applied Econometrics</u>, Palgrave Macmillan, New York Cameroon Samuel (2005), <u>Econometrics</u>, Mcgraw Hill, New York. Davidson, J. (2000) <u>Econometric Theory</u>, Blackwell, USA Goldberger, A.S. (2000) <u>Introductory Econometrics</u>, Harvard University Press, Cambridge. Greene, W. (2004) <u>Econometric</u> Analysis, Prentice Hall, New York. Gujarati, D. (2004) <u>Basic Econometrics</u>, McGraw Hill, New Delhi. Hayashi, F (2000), <u>Econometrics</u>, Princeton University Press, Princeton. Pattreson, Kerry (2000) <u>An Introduction to Applied Econometric: Time Series Approach</u>, Palgrave Macmillan, New York
Learning	• Pattreson, Kerry (2000) <u>An Introduction to Applied</u> <u>Econometric: Time Series Approach</u> , Palgrave
<u>Learning</u> <u>Outcomes</u>	interpret econometric models and to draw the policy implications to help decision makers.

Course Code: ECO 127 Title of the Course: OPTIONS: THEORY & PRACTICE

Number of Credits: 4 Total C

Total Contact Hours:48

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Prerequisites for	Basic knowledge of Concepts in Financial Economics	
<u>the course:</u> Objective:	This course is unique and practical oriented. The objective is to acquaint the students the actual skills of using options theory in various real life situations.	Contact Hours
<u>Content:</u>	. 1. The basics of options The need for options – Introduction to different types of options – stock options, index options, currency options, etc. Characteristics of options : call options, put options, European and American, Long call options and put options, Short call options and put options. Advantages of options compared to	10
	 futures, forwards and stocks. 2. Pricing of options Factors affecting the price of the options. Intrinsic value and Extrinsic value. Options status relative to the underlying asset : In the money (ITM) At the money (ATM), Out of the money (OTM). 	08
	3. Option valuations Theoretical values of option, Black-Scholes options pricing model.Option Greeks : variables that affect the options values – Delta, Gamma, Theta, Rho,Vega.	10
	4. Options strategies Different strategies of options for bullish, bearish and neutral market situations. Bullish strategies : long calls and short puts, bull call spreads and put spreads. Ratio call spreads. Bearish strategies : long puts, short calls bear put spreads, Neutral strategies : covered call writing, straddles, strangles, butterfly.	10
	5. Applications of Options The functioning of the option market : stock options, index options, currency options, commodity options	10
Pedagogy:	lectures/ case analysis/assignments/class room interaction/ analysing live options markets in the real time.	
References/Read ings	 Burghardt, Galen, (2003), The Eurodollar Futures and Options Handbook, McGraw-Hill. Figlewski. S., W. Silber and M. Subrahmanyam, 	

	 (1990), Financial Options, : FromTheory to Practice, Business One Irwin. Gastineau, G. L., (1988), The Stock Options Manual, 3rd edition, McGraw-Hill. Graeme Guthrie,(2009) Real Options in Theory and Practice, Oxford University Press. Hull , J., (2012), Options, Futures and Other Derivative Securities, 8yj edition. Jarrow, R. A. And A. Rudd, (1983), Option Pricing, Dow Jones – Irwin. McMillan, L.G.,(1993), Options as a Strategic 	
	 3rd edition, McGraw-Hill. Graeme Guthrie,(2009) Real Options in Theory and Practice, Oxford University Press. Hull , J., (2012), Options, Futures and Other Derivative Securities, 8yj edition. Jarrow, R. A. And A. Rudd, (1983), Option Pricing, Dow Jones – Irwin. 	
	 Theory and Application, Thomson South Western Taleb, Nassim, (1997), Dynamic Hedging : Managing Vanilla and Exotic Options, Wiley. 	
Learning Outcomes	The students will be able to understand and analyse the options in Indian markets and will be in a position to analyse financial options, currency options and commodity options.	

Course Code: ECO 128 **Title of the Course:** International Trade and Globalisation

Number of Credits: 4 Total Contact Hours:48

Prerequisites for	NIL	
the course:		
Objective:	To introduce the students to the theories and tools used to analyze economic issues resulting from interaction of a country with the rest of the world.	Contact Hours
<u>Content:</u>	1.TradeTheories Heckscher Ohlin Model and factor endowments- Factor price equalisation-Stolper Samuelson Theorem-Tests of H-O model- Leontief paradox. Alternative trade models -Specific factors model-Product life cycle-Intra-industry trade-Imperfect competition and trade -Reciprocal dumping model. Flying geese paradigm.	12
	2. Economic Growth and International Trade Growth of factors of production -Rybczynski theorem- Technical progress and international trade - Effects of growth on trade- immiserising growth-International trade and growth: Dynamic models- trade and development	06
	4. Commercial Policy Tariff-Economic effects of tariff-Partial and general equilibrium analysis-Tariff structure-Effective rate of protection-Optimum tariff- Various Non-Tariff measures- Economic effects of quota-Dumping and anti-dumping regulations	12
	5. Factor Movements Welfare effects of international labour and capital movements- Foreign Direct Investment(FDI)-Foreign Institutional Investment(FII)-Financial Globalization-Capital movements to developing countries- International labour migration -Recent trends.	06
	6. Regional Trading Agreements and New World Order Regionalism v/s Mulilateralism-Theory of customs union- Trade creating and trade diverting- European Union(EU)- North American Free Trade Agreement(NAFTA).	06
	7. WTO and Trade Liberalisation WTO-Structure and constitution-Agriculture, industry, services and labour under WTO-UNCTAD- functions-role-	06

	UNCTAD and developing countries Trends in Clobal trade in	
	UNCTAD and developing countries-Trends in Global trade in goods and services.	
Pedagogy:	Lectures, written assignments, seminar presentations	
References/Read	References	
<u>References/Read</u> ings	 Kelerences Bardhan Pranab (2003), International Trade, Growth and Development, Blackwell Publishing, USA. Carbaug Robert J.(2007), <u>International Economics</u>, South Western and Centage Publishing, New Delhi Gandolfo, G (2006), International Trade: Theory and Policy, Springer (India) private limited Gerber James (1999), <u>International Economics</u>, Addison -Wesley, California. Goldin Ian and Kenneth Reinert (2006) Globalisation for Development, Palgrave Macmillan. Husted Steven and Michel Melvin(2009), <u>International Economics</u>, Addison-Wesley, New York. Jones, K.A.(2015), <u>Reconstructing The World Trade Organization For The 21st Century : An Institutional Approach</u>, Oxford University Press, New York. Kenen, Peter B(2000) <u>International Economy</u>, Cambridge University Press, Cambridge. Kindleberger, C. (1998) <u>International Economics</u>, AITBS, New Delhi. Krugman, paul and Maurice Obstenfeld (2009),<u>International Economics</u>: Theory and Policy Pearson Education, Addison Wesley Longman, New Delhi. Marrewijk C.V, (2002), <u>International Trade and the World Economy</u>, Oxford University Press, Oxford Salvatore, Domnic (2007) <u>International Economics</u>, Macmillan, Singapore Sodersten Bo and Geoffery Reed(1994), <u>International Economics</u>, Macmillan , London. Srinivasan T.N. and Suresh D.Tendulkar(2001), <u>India in the World Economy</u>, Institute for International Economics, New York Thompson, Henry (2010) <u>International Economics</u>, Cambridge University Press India, New Delhi 	
<u>Outcomes</u>	The students will be able to understand matters related to trade policy and the impact on the global economy.	

Course Code: ECO 129 **Title of the Course:** International Finance

Number of Credits: 4 Total Contact Hours:48

<u>Prerequisites for</u> the course:	Knowledge of concepts of International Economics	
Objective:	To introduce students to global financial markets in relation to domestic policies and regulatory systems.	Contact Hours
Content:	1. BOP adjustment Balance of payments (BOP) accounts and balances- BOP and National Income-Foreign trade multiplier-BOP adjustments- Elasticity's approach-Marshall-Lerner condition- J curve-Absorption approach-Internal balance and external balance-Assignment Problem.	10
	2. Open Economy Macroeconomics and BOP Mundell-Flemming model-Adjustments under pegged exchange rate systems and flexible exchange rate systems, imperfect and perfect capital mobility -Monetary approach to BOP.	06
	3. Exchange Rate Foreign exchange marketExchange rate determination-Spot markets- Forward markets-Interest arbitrage-Covered- uncovered-Hedgers-Speculators-Theories of exchange rate determination-Purchasing power parity-Monetary model- Flexi-price-Sticky price-Exchange rate overshooting-Portfolio balance model.	10
	4. Currency Futures, Options & Swaps Futures market -Hedging - Options market-Call option-Put option-Option premium- Option pricing model-Foreign exchange risk-Exchange rate systems- Currency Swaps	08
	5. International Money and Capital Market Eurocurrency market-Characteristics- loan syndication technique- Capital market-International bond market-Equity market-GDRs-ADRs.	08
	6. International Liquidity Bretton Woods system & its collapse -managed floating- Optimum currency areas-European Monetary System- Euro- Financial crisis-models of currency crisis-IMF	08

Pedagogy:	Lectures, written assignments, seminar presentations	
References/Read ings	 References Berg, Hendrik Van den (2010), International Finance And Open-Economy Macroeconomics, Cambridge University Press, New Delhi. Butler, Kirt.C (2003), Multinational Finance, South Western College Publishing , New York. Carbaug Robert J.(2007), International Economics, South Western and Centage Publishing, New Delhi. Daniels, Joseph P.(2002), International Monetary And Financial Economics, South-Western/Thompson Learning, Cincinnati, Ohio. De Rosa David F(1998), Currency Derivatives, John Wiley , New York. Feenstra, Robert and Alan Taylor(2008) International Economics, Worth Publishers, New York. Gandolfo Giancarlo,(2006), International Finance and Open -Economy Macro Economics, Springer, New York. Husted Steven and Michel Melvin(2009), International Economics, Addison-Wesley, New York. Kenen Peter B(2000), International Economy, Cambridge University Press, New York. Krugman, Paul and Maurice Obstfeld (2009), International Economics: Theory and Policy Pearson Education, Addison Wesley Longman, New Delhi. Levi, M.D (2005) International Finance, Routledge, Taylor Francis Group, New York London Pilbeam. K (2009) International Finance, Palgrave Macmillan, New York. Salvatore Domnic(2007), International Economics, Macmillan, London. Shapiro Alan, C (1999), Multinational Financial Management, John Wiley , New York. Sodersten Bo and Geoffery Reed (1994), International Economics, Macmillan Press, Ugur Mehmet(2002), An Open Economy Macroeconomics Reader, Routledge, New York. 	
<u>Learning</u> <u>Outcomes</u>	Upon completion of this course students will be able to analyze a nation's balance of payment, foreign exchange markes, international monetary standards and explain financial crises in emerging economies, their causes and solutions	

Course Code: ECO 226

Title of the Course: Advanced Econometrics

Number of Credits: 4

Total Contact Hours:48

<u>Prerequisites for</u>	Introduction to Econometrics-1	
the course:		
Objective:	The objective of the course is to familiarize the students with advanced econometric analysis using time series and panel	Contact Hours
	data.	
Content:		
	 Auto Regressive and Distributed Lag Models Estimation of distributed lag models - Adaptive Expectations models - Stock adjustment models - ARDL Models- Method of instrumental variables 	10
	2. Simultaneous Equation Models	
	 Nature of Simultaneous Equation Models. Problems of Bias, Identification and Simultaneity -The method of indirect Least Squares - Method of two-stage least squares Time Series Analysis 	12
	Spurious Regression, Random Walk Model,	
	Stationarity, Unit Root, Co-integration, ARIMA,	8
	Introduction	-
	Causality test. Introduction to VAR	
	Models.	
	4. Panel Data Analysis	10
	Cross Section and Time Series data analysis- Fixed Effects	
	and Random Effects Models. Applications of Panel Data	8
	5. Qualitative Dependent variable Regression	
D 1	LPM, Logit, Probit and Tobit models.	
Pedagogy:	lectures/ case analysis/assignments/class room interaction/lab practical's	
References/Read	References	
ings	 Baltagi (2005), <u>Econometric Applications of Panel</u> <u>Data</u>, John Wiley and Sons, England Davidson, J. (2000) <u>Econometric Theory</u>, Blackwell, 	
	USA	
	• Gourieroux, C(2000) Econometrics of Qualitative	
	Dependent Variables, Cambridge University Press,	
	Cambridge.	
	 Greene, W. (2018) <u>Econometric Analysis</u>, Pearson, New York. 	
	• Gujarati, D (2004), Basic Econometrics,	
	MacgrawHill, New Delhi	
	• Hasio Chang (2003), <u>Analysis of Panel Data</u> ,	

	Cambridge University Press
	• Maddala, G.S. & I.M. Kim (1998) Unit Roots, Co-
	integration & Structural Change, Cambridge
	University Press, Cambridge
	• Mukherjee, C., H. White & M. Wuyts (1998)
	Econometrics & Data Analysis for Developing
	Countries, Routledge, London
	• Pattreson, Kerry (2000) <u>An Introduction to Applied</u>
	Econometric: Time Series Approach, Palgrave
	Macmillan, New York
	• Pattreson, Kerry (2010) A Primer for Unit root
	testing, Palgrave Macmillan, USA
	• Wooldridge, Jeffrey M (2002), Econometric Analysis
	of cross section and Panel Data, MIT Press, USA
Learning	The students will be able to build macroeconometric models
Outcomes	using time series data and panel data and estimate the same
	using econometric software.

*01 level one courses and 02 level two courses